

REMARKS

Claims 8-19 are pending, claim 8 has been amended. The amendment to claim 8, i.e., "said outlet sides being wider than the inlet sides" is supported, inter alia, on page 1, lines 13-14; page 7, lines 34-35 in the Example and Figure 2.

Claim 19 is assumed to be allowed since it was not rejected.

Claims 8-14 and 16-18 stand rejected as being anticipated by Yamamoto et al. (US 5,753,191).

Generic claim 8 is not anticipated by Yamamoto. While the "gas passage holes" of the reference and corresponding "gas flow orifices" of the present invention are widened conically, the reference holes are widened on the inlet side (under side) while claimed holes are widened on the outlet side, i.e., "said outlet sides being wider than the inlet sides". While it is believed that this was clear from the original claims, the amendment to claim 8 leaves no doubt concerning this crucial feature. Thus, this rejection should be withdrawn since the reference clearly does not disclose this feature.

The examiner has concluded that all the limitations of claims 9-13 and 16-18 are also taught by Yamamoto. This is not the case.

Not only are the inlet and outlet shapes reversed in Yamamoto, but the flaring angles are also different, i.e., the reference teaches 60° to 150° while claim 12 calls for an angle of 20 to 40°. This is an advantageous embodiment as pointed out in the specification (page 3, lines 19-29).

Additionally, the limitation of claims 13 and 17-19 concerning the percentage of the total area of the upper side of the distributor plate less the orifices is not taught by the reference. In fact, Fig. 2 of Yamamoto clearly teaches away from the claimed limitation, i.e., the planar space is much greater than the holes. This is another advantageous embodiment of applicants invention (page3, lines 32-40).

Finally, the reactor of the reference does not appear to have a flow divider as required by claims 16 and 19.

Thus, these claims are even further removed from the teaching of Yamamoto.

Claims 14, 15 and 18 stand rejected as being obvious over Yamamoto. The reference is silent as to the pressure drop as recited in claims 14 and 18. Contrary to the examiner's conclusion, the limitation of claims 14 and 18 are not inherently present because the features required for such an embodiment are not taught by the reference. The number and shape of the gas orifices as well as the diameter of the orifices at their narrowest point are all important in achieving this pressure drop as taught on page 3, line 45 to page 4, line 12 of the specification. Yamamoto does not teach the shape of the orifice not that there is a correlation between the number and shape of the orifices. Thus, there is no evidence that this limitation is inherent in the process of the reference.

While the examiner acknowledges that Yamamoto does not teach the preferred orifice diameters of claim 15, he concludes that such diameters are result effective variables and thus, obvious from the teachings of the reference. This is not necessarily the case since the objects of the inventions are achieved in different ways, i.e., there is

no assurance that the objects of Yamamoto could be achieved by using orifices with diameters of 2 to 5 mm.

The object of the present invention is to reduce polymer formation on the upper side (outlet side) of the distributor plate (page 2, lines 33-37). This is accomplished by the use of gas flow orifices in which the orifices are conically widened on the outlet side as previously discussed.

One of the objects of the Yamamoto invention is to prevent the gas flow orifices from plugging on the inlet (under side) side of the distributor plate. This is accomplished by having the gas flow orifices conically widened on the inlet side.

Another object of Yamamoto is to prevent polymers from plugging the outlet gas orifices (col. 18, lines 39-44). This is done by having overcaps over the upper side of the gas flow orifices (Fig. 7-13; col. 3, line 57 to col. 4, line 6).

Thus, while the objects may be similar, there is no teaching or suggestion in Yamamoto of reducing polymer deposits on the outlet side of the distributor plate by having the gas flow orifices widened conically on the outlet sides. Favorable action by the examiner is solicited.

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KNAUER et al., Serial No. 10/696,428

Respectfully submitted,

KEIL & WEINKAUF

A handwritten signature in black ink, appearing to read "Edward J. Smith". The signature is fluid and cursive, with the first name "Edward" being more prominent.

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